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ABSTRACT

Whites benefit more than blacks from rural economic growth according to the findings of a 1982 survey of over 75,000 households in 10 rural counties in southern Georgia, selected to represent fast growing nonmetro areas with mixed manufacturing and commercial agriculture-based economies with substantial minority populations. From 1976 to 1981, a period of rapid employment growth, the percentage of white women with jobs in the study area increased, while the percentage of black men with jobs decreased. Among employed persons, whites increased their share of higher wage jobs. Persons who moved into the area obtained higher paying jobs than did other residents. These immigrants, most of whom were white, in general took larger shares of the new jobs than did continuous residents of both racial groups. Among nonworking adults in 1981, blacks were more likely than whites to report that they wanted to work. Nonworking blacks, more than nonworking whites, reported that they could not find jobs or that they could not meet hiring requirements. Low education levels, which may be reflected in low skill levels, prevented blacks from sharing more in increased job opportunities. Improving the education and job training of poor residents, especially blacks, is essential to distributing economic benefits more equally. (Author/NEC)

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Distribution of Rural Employment Growth by Race: A Case Study

Victor J. Oliveira

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Abstract

Whites benefit more than blacks from rural economic growth, based on the findings of a survey of adults in 10 rural counties in southern Georgia. From 1976-81, a period of rapid employment growth, the percentage of white women with jobs in the study area increased, while the percentage of black men with jobs decreased. Among employed persons, whites increased their share of higher wage jobs. Persons who moved into the area obtained higher paying jobs than did other residents; these inmigrants, most of whom were white, in general took larger shares of the new jobs than continuous residents of both racial groups. Improving the education and job training of poor residents, especially blacks, is essential to distributing economic benefits more equally.

Keywords: Blacks, continuous residents, economic growth, employed persons, inmigrants.

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Contents

Page

Summary v

Glossary vi

Introduction 1

Background 1

Study Area and Survey Design 2

Household and Individual Characteristics 4

Continuous Residents 6
- Employment to Population Ratios 6
- Employed Persons 8
- Nonworking Adults 11

Inmigrants 13

Summary of Labor Force Changes, 1976-81 14

Conclusions 15

References 16

Summary

Whites benefit more than blacks from rural economic growth, based on the findings of a survey of adults in 10 rural counties in southern Georgia. From 1976-81, a period of rapid employment growth, the percentage of white women with jobs in the study area increased, while the percentage of black men with jobs decreased. Among employed persons, whites increased their share of higher wage jobs. Persons who moved into the area obtained higher paying jobs than did other residents; these inmigrants, most of whom were white, in general took larger shares of the new jobs than did continuous residents of both racial groups. Improving the education and job training of poor residents, especially blacks, is essential to distributing economic benefits more equally.

This report analyzes the responses to a 1982 survey of adults in a rural area selected to represent fast growing nonmetro areas with mixed manufacturing and commercial agriculture-based economies with substantial minority populations.

Among nonworking adults in 1981, blacks were more likely than whites to report that they wanted to work. Nonworking blacks, more than nonworking whites, reported that they could not find jobs or that they could not meet hiring requirements. Low education levels, which may be reflected in low skill levels, prevented blacks from sharing more in the increased job opportunities. Nonworking whites more frequently chose not to work.

Adults who moved into the area after 1976 were better able to compete for jobs than were most long-term residents. These predominately white inmigrants were better educated than other residents. They apparently increased the average skill levels of the local labor supply, putting the less educated residents, especially blacks, at an even greater disadvantage in the labor market.

Glossary

Statistical testing and survey design:

Significant difference:

A comparison between two variables was statistically significant at the 95-percent confidence level when the observed difference was greater than twice the standard error of the difference. A comparison between two variables was statistically significant at the 99-percent confidence level when the observed difference was greater than 2½ times the standard error of the difference. The variables tested were in the form of totals, ratios, percentages, dollar values, and so forth.

Survey sample design:

Area frame. The area frame consisted of a two-stage stratified cluster sample, where the first stage involved sampling segments and the second stage involved sampling establishments and households. The area frame provided a sample of establishments and households not identified by the list frame. The area frame and list frame together represented the total population of establishments and households.

List frame. The list frame sample comprised a list of private-sector establishments and government units located in the 10-county area. A subsample of employees was drawn from the surveyed list frame establishments which subsequently became the list frame sample of households.

Population and employee-related terms:

Household:

A group of persons, not necessarily related by blood or marriage, whose usual place of residence is in a house, an apartment, a group of rooms, or a single room occupied as separate living quarters.

Household income. All income received during the year by household members except income received from the sale of land, buildings, stock, or other capital assets.

Household member. Any person whose usual place of residence is in the housing unit that was surveyed. (A housing unit is a house, an apartment, a group of rooms, or a single room occupied as separate living quarters.)

Adult:

Any person who was 16 years of age or older in January 1982.

Employment status:

Employed. Employed persons who were working for wages or salaries or who were self-employed in their own businesses or professions or on their own farms.

Nonworking adults. Unemployed persons who were looking for work or on layoffs waiting to be called back to a job or persons not in the labor force.

Employment to population ratio. The proportion of the adult population that was employed during the year (E/P ratio).

Full-time. Wage and salary workers who worked 30 or more hours per week.

Part-time. Wage and salary workers who worked less than 30 hours per week.

Recent entrants to the labor force. Persons who were not in the labor force in 1976 but who were employed 1 or more weeks in 1981.

Experienced workers. Persons who were employed 1 or more weeks in both 1976 and 1981.

Self-employed. Persons who worked for profit or fees in their own businesses or professions or on their own farms.

Resident status:

Continuous residents. Residents who lived in the 10-county area continuously between December 31, 1976, and January 1982.

Continuous residents include *long-term residents* who lived in the area continuously between December 31, 1966, and January 1982 and *early inmigrants* who moved to the 10-county area between January 1, 1967, and December 31, 1976.

Recent inmigrants. Residents who moved to the 10-county area between January 1, 1977, and January 1982.

Occupational groups:

Executive. Includes managerial, administrative, engineering, scientific, teaching, and related occupations, including creative artists.

Technical. Includes technicians, clerical, sales, service, farming, forestry, fishing, and hunting occupations, and persons living in the area who were in the military.

Production. Includes production workers in manufacturing, construction, extractive, transport, and related occupations.

Race:

Survey enumerators asked respondents to determine their own race. Whites and blacks are the racial groups of statistical significance in the 10 Georgia counties. Although included in the overall population, such groups as Hispanics, Asians, and American Indians made up less than 0.5 percent of the population, a statistically insignificant proportion.

Distribution of Rural Employment Growth by Race

A Case Study

Victor J. Oliveira*

Introduction

A primary goal of the Rural Development Act of 1972 and the Rural Development Policy Act of 1980 was to generate employment opportunities in local areas in order to improve the well-being of area residents. Employment is directly related to improving an individual's well-being since the sale of one's own labor is the primary source of income for most rural residents.[1] The quality of community services and facilities depends on the tax base and purchasing power provided by employment and income (*20*). A basic premise of Federal rural development programs is that economic growth benefits the unemployed and other disadvantaged groups by improving employment opportunities and income. The rationale behind this premise is that economic development increases the demand for skilled labor, which in turn results in upgrading the positions of low-skilled and unemployed workers (*1*).

Many studies have examined the distributional effects of economic growth on various population groups, including whites and minorities, using regional or national data. However, few studies have specifically focused on local rural labor markets. Highly aggregated regional and national data may not be representative of individual rural labor markets. Because of these data limitations, the effectiveness of rural development programs in aiding unemployed and low-income residents has not yet been clearly documented.

This report measures the effects of economic growth on whites and blacks in a 10-county area in rural Georgia. The focus is on the distribution of jobs and the characteristics of these jobs between 1976 and 1981, to see how whites and blacks shared in the benefits associated with economic growth. This period was one of rapid economic growth in the area. The information contained in this report should prove useful to economic development agencies, local area planners, and State and Federal program managers in planning effective rural development strategies.

Background

The employment and income situation of minorities in the United States has long been one of this country's major concerns. Historically, most minorities have been disadvantaged, in relation to nonminorities, in both opportunity and economic status. This situation has been especially true of blacks who made up 70 percent of the U.S. nonwhite population in 1980 (*22*). The lower labor force participation rate and higher unemployment rate of blacks is well documented (*7, 14*). In rural areas, the displacement of blacks from agricultural employment has contributed to their high unemployment.[2] Blacks who seek employment off farms have traditionally taken lower skilled and lower paid jobs than have whites (*9, 32*). Explanations for

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[1]Wages and salaries accounted for 70.7 percent of total family income in nonmetro areas in 1979. Self-employment income accounted for another 10.2 percent (*21*). Italicized numbers in parentheses refer to items in the references section.

[2]The number of black-operated farms declined by 79 percent between 1959 and 1978 while white-operated farms declined by only 30 percent (*24, 25*). Similarly, the number of black and other minority hired farmworkers fell by 75 percent between 1960 and 1981 compared with a 7-percent decrease in the number of white hired farmworkers (*18, 19*).

these racially different employment patterns include differences in education levels, job training, and work experience, as well as discrimination against blacks in the labor market.

How has economic growth affected the position of blacks compared with whites? Previous research has suggested that economic growth benefits blacks relatively more than whites; several studies have found that when national business conditions have improved, blacks have left the ranks of the unemployed in greater proportions than whites (*7, 13, 17*). Earnings and movement up the occupational ladder have also progressed faster for blacks than whites during periods of favorable economic expansion (*32*). Conversely, the position of blacks declines in relation to whites during periods of economic downturn (*7, 17*). These results have been attributed to the fact that blue-collar employment, where most employed blacks are concentrated, is considerably more affected by changing business conditions than is white-collar employment.

The results of these studies were based on nationally aggregated data. While economic development generally increases employment opportunities at the national level, the associated benefits, in terms of higher employment rates and increased wages, may not be distributed equally among population groups or regions. Therefore, national results may not be applicable to local areas, particularly rural areas. Previous research has found that for most measures of socioeconomic status, including educational attainment, occupational structure, and family income, racial disparity is greater in nonmetro areas than in metro areas (*2*).

The advanced technology associated with fast-growing areas may have increased the demand for highly skilled labor and decreased the demand for less skilled labor (*3*). Therefore, individuals with limited job skills may find that economic development leaves them in a relatively worse economic position than before. Since blacks generally have lower levels of schooling and job training than whites, they are at a disadvantage when competing for new, highly technical jobs. Such technological displacement may contribute to black unemployment and may limit black economic opportunity (*5*).

Technological displacement of workers may not be the only risk of economic development. Economic development can open up a wide range of new employment opportunities, but it is also frequently associated with inmigration. Hence, local residents must not only compete with each other, but they must also compete for new jobs with people moving into the area from other regions. Inmigrants may have educational and work experience levels greater than those of the local inhabitants, and consequently they may have a comparative advantage in the expanding labor force (*4*). As inmigrants improve the overall quality of the labor supply, employers' expectations about educational attainment and job skills rise, and job standards may become even more rigorous, reducing job opportunities for persons with lower education and job skill levels (*8*).

Study Area and Survey Design

The data for this study came from a 1982 survey in 10 rural southern Georgia counties—Berrien, Brooks, Colquitt, Cook, Echols, Grady, Lanier, Lowndes, Thomas, and Tift (fig. 1). Economists in USDA's Economic Research Service designed the study to examine the distribution of jobs among rural residents (*15*). Valdosta, with a 1980 population of 36,650, is the only city in the study area with a population over 20,000. The nearest metro areas, Albany, Georgia, and Tallahassee, Florida, are about 30 miles away.

This area was the second of three areas surveyed by the Economic Development Division (predecessor to

Figure 1
The 10-county Georgia study site

the Agriculture and Rural Economics Division) to study how the effects of economic growth in rural labor markets are distributed (*4, 15*). We chose the study site because it is representative of local labor markets with the following characteristics:

- A sizable minority population.
- A mixed industrial base including a significant agricultural sector.
- A reasonably self-contained labor market as evidenced by low commuting rates into and out of the area.
- Employment growth in the seventies above the average growth rate for all nonmetro counties.

While the study area does not represent the total nonmetro United States, it does typify substantial segments of the nonmetro South. The relationships found in this study should hold for other nonmetro areas with similar attributes.

Between 1976 and 1981, total employment in the area increased 11.5 percent, and population increased by 4.6 percent. This compared with U.S. nonmetro rates of 8.8 percent and 5.7 percent, respectively (*28*). Most of the new jobs were in technical- and production-related occupations, and relatively few new jobs were in professional occupations (*15*). The growth of new business in the area was rapid; one-third of the area's 5,800 businesses started operations after 1976.

To learn how job opportunites were distributed among population subgroups, we used a random stratified multiple frame survey design to collect the necessary data.[1] We compiled a list frame of employers in the 10-county site stratified by type of industry and employment size from data supplied by the Employment Security Agency of the Georgia Department of Labor, the Georgia Department of Industry and Trade, telephone directories, and trade association membership lists. We then developed a random sample of employees from surveyed business establishments on the establishment list frame. This sample of employees formed the list frame sample of households.

We used an area frame to develop a sample for interviewing those households not included on the list frame. This area frame included those households with no employed members and households where employed members worked in businesses not on the list of establishments. We stratified the area frame by three types of land-use patterns and by the concentration of residences of minorities. We included the stratum for minorities in order to ensure that a sample of minority households would be adequate for analysis.

The minority population in the 10-county study area was concentrated in cities and towns and generally resided within definable boundaries in these more urban areas. These minority neighborhoods were mapped as distinct strata from the balance of urban places. We thought that the high unemployment of minorities might limit list frame contacts. The spatial distribution of minorities was such that an area frame not stratified by race might not pick up enough minority households for statistically reliable inferences. Other minorities, including American Indians, Asians, and Hispanics, made up less than 0.5 percent of the population, a statistically insignificant proportion, in the study area. For summary purposes, the racial groups American Indians and Asians were included with blacks; the ethnic group of Hispanics was included with whites in this report.

Enumerators interviewed a random sample of list frame and area frame households in January and February 1982 using the household questionnaire. Collected data on household composition and demographics included the age, race, gender, and educational attainment of household members. Information on 1981 and 1976 employment status was obtained for all adults age 16 years or older in each year. Survey questions covered occupation, employing industry, hours and weeks worked, and wage rates for those working in 1981 or in 1976. We asked those persons who did not work in 1981 why they were not working. All adults were asked about participation in job training programs and migration to the study site. Finally, each household was asked a series of questions on sources and amounts of income and participation in public assistance programs. A total of 1,015 households containing 3,003 persons completed interviews including 241 black households and 840 black household members. The data were expanded to estimates of total population in the area.

[1] See (*15*) for more detailed information on the survey design, stratification, sampling rates, and response rates.

The survey measured the households in the study area as they existed in January and February 1982 and also included recall questions to determine their 1981 and 1976 circumstances. However, interviews with the current population cannot fully describe the 10-county area as it existed in 1976 because the survey design does not account for those persons who died or moved away before January 1982. In effect, the survey measures only the survivors from 1976 and newcomers to the area.

Because the data are derived from a survey, all estimates of totals, proportions, and means in this report are subject to sampling error. Even though a given estimate is different between two or more subpopulations or variables, the difference may not be statistically significant due to sample variation. Discussions in the text which compare differences of subpopulations are limited to those comparisons which are statistically significant at the 95-percent confidence level or higher, unless otherwise noted. Differences in the tables between subpopulations which are statistically significant at the 95- or 99-percent confidence level are noted. In instances where the number of sample households or persons associated with a given attribute was less than 30, we did not attempt statistical testing; household and person estimates based on fewer than 10 sample observations are noted in the following tables. Such estimates typically have very large standard errors and they should be interpreted with care. However, for the majority of estimates, the coefficient of variation does not exceed 15 percent. (See (*15*) for the statistical tests used in this study.)

Household and Individual Characteristics

Data from the surveyed households represent over 75,000 households, about 27 percent of which were headed by blacks (table 1). Black households in the area, resembling those throughout the nonmetro South, had lower incomes and were more likely to participate in public assistance programs than white households (*23*). The average household income for blacks in 1981 was over $6,500 less than the average household income for whites. Almost 25 percent of all black households participated in at least one public assistance program compared with only 6 percent of all white households. Similarly, black households were four times as likely as white households to receive food stamps.

Black households in the area were more economically disadvantaged than white households, partly because black households earned less than white households, but also because of their household structure. Although black households were larger than white households, they had fewer employed household members. Households headed by women are associated with low incomes, and 41 percent of the black households were headed by women compared with only 22 percent of white households. The average income for black households headed by women was about $5,000 less than for black households headed by men. Because of these factors, per capita income in black households was less than half that in white households.

The economic well-being of households, except for the aged, depends largely on the wage earnings or

Table 1—Household structure by race, January 1982

Characteristic	Total	White	Black
		Number	
Households	75,130	54,960	20,170
		Persons	
Average household size	2.8	2.7**	3.4
Employed persons per household[1]	1.2	1.3*	1.1
		Dollars	
Average household income[1]	15,200	17,026**	10,447
Per capita income[2]	5,313	6,408**	3,080
		Percent	
Households headed by women	27.5	22.4**	41.3
Participation in:			
Public assistance programs[3]	11.2	6.5**	24.1
Food stamp program	12.3	6.8**	27.4

Note: Rounding will affect computations using these figures.
*Significantly different from the corresponding black value at the 95-percent confidence level.
**Significantly different from the corresponding black value at the 99-percent confidence level.
[1]Based on 1981 information.
[2]Equals household income divided by number of household members.
[3]Includes Aid to Families with Dependent Children and Supplemental Security Income.

self-employment income of the individuals in the households. Income from rents and interest as well as government transfer and assistance program payments are usually smaller components of household income. Examining the characteristics related to the earning ability of individuals is useful when assessing the effects of economic growth in an area. These characteristics include the race, gender, age, and education level of individuals.

Almost 32 percent of the estimated 213,780 people living in the area at the time of the survey were black compared with 19 percent in the nonmetro South in 1980 (table 2). The black adult population contained a greater percentage of women than did the white population. The implication of this is that women, with their lower average wages, will be more heavily represented among employed black adults than among employed white adults.

Blacks in the study area were generally younger than whites, meaning that a smaller percentage of blacks were old enough for employment. To the extent that age measures experience, blacks also had less work experience.

Whites were significantly more likely than blacks to have been recent inmigrants, that is, they moved into the area sometime after 1976.[4] As a group, these inmigrants completed 2 more years of formal schooling than did continuous residents. Other studies have also found that inmigrants have more schooling, training, and skills than do long-term residents (*4, 8*).

Formal education qualifies people for more and better paying jobs. The educational structure of the area's adult population resembled that of the nonmetro South with whites completing more years of education than blacks (*23*). About 60 percent of all area white adults completed high school compared with only 36 percent of black adults (table 2). Whites were three times more likely than blacks to have some college education. On average, whites completed over 2 more years of schooling than blacks.[5]

[4]In this report, long-term residents and early inmigrants (persons who moved into the area between 1966 and 1976) were combined into one group for comparison with recent inmigrants. This was done so that residents moving to the area after 1976 could be compared with residents living continuously in the area between 1976 and 1981. Our objective was to determine if newcomers to the area during a period of robust economic growth benefited from the growth more or less than did area residents living in the area during the entire growth period. Economic growth in the area was measured from 1976 to 1981. See Glossary for the definition of resident status.

[5]The data did not permit measurement of the quality of education by race. Other studies have suggested that the education provided to blacks in parts of the South is of lower quality than that provided to whites (*31*).

Table 2—Characteristics of household members by race, January 1982

Characteristic	Total	White	Black
		Number	
Household members	213,780	145,460	68,320
		Percent	
Men	46.5	47.4*	44.6
Women	53.5	52.6*	55.4
Age:			
Under 16 years	29.3	25.5**	37.4
16 to 24 years	14.6	13.3**	17.3
25 to 34 years	15.4	16.8**	12.3
35 to 54 years	20.4	22.0**	17.0
55 to 64 years	9.3	10.4**	7.0
65 years and older	11.0	12.0	9.0
		Years	
Average age	32.0	34.0**	28.3
		Number	
Adult population, 16 years and older	151,120	108,360	42,760
		Percent	
Residency status:[1]			
Continuous residents	86.2	82.6**	95.2
Recent inmigrants	13.8	17.4**	4.8
Education:			
Less than high school	46.2	39.1**	64.1
High school	32.8	34.7**	28.1
Beyond high school	21.0	26.2**	7.8
		Years	
Average years of schooling completed	10.8	11.4**	9.3

*Significantly different from the corresponding black value at the 95-percent confidence level.

**Significantly different from the corresponding black value at the 99-percent confidence level.

[1]Continuous residents resided in the study area continuously between December 31, 1976, and January 1982. Recent inmigrants moved to the study area between January 1, 1977, and January 1982.

The educational data presented in table 2 include all adults age 16 and older. This group includes some persons who were still in school at the time of the survey. The education levels of whites in the area remained virtually unchanged if one examines only those persons 25 years of age and older. This latter group is more likely to have finished their formal education than younger adults. The education levels of blacks age 25 and older were slightly lower than those of all black adults. Sixty-nine percent of all blacks age 25 and older did not graduate from high school compared with 64 percent of all black adults. On average, blacks age 25 and older completed 8.7 years of schooling. In effect, the difference in education levels between adult whites and blacks was even more pronounced for adults age 25 and older.

The survey data suggest that the economic position and human capital levels of blacks in the 10-county area in 1982 were below those of area whites. Blacks had significantly lower household income, per capita income, and education than did whites, while blacks relied more heavily on public assistance. Our conclusion is that the following characteristics of the area's adult black population combined to limit blacks' earnings compared with whites': lower levels of schooling, younger age, and the greater number of households headed by women. However, these data do not show whether blacks have improved their position in relation to whites over time or whether they have benefited from economic growth. Analysis of the labor market position of blacks and whites before and after employment growth indicates the distributional effects of economic growth. Though blacks started from a lower economic position than whites, the relative differences in their positions after growth should be the same if blacks and whites shared equally in the area's economic growth. To explore these issues, we compared the economic situations of blacks and whites in 1976 with their situations in 1981, during which time the area's economy grew substantially.

Continuous Residents

The analysis of the distributional effects of growth in this section covers only residents who lived in the area continuously between 1976 and 1981. A subsequent section, Inmigrants, will cover residents who moved into the area after 1976. No single statistical measure can tell us if blacks have benefited from economic growth to the same degree as whites. For this reason, we used three measures to compare the economic position of whites and blacks during a period of employment growth: 1) the percentage of the black and white population that was employed in 1976 and in 1981; 2) the characteristics of employed blacks and whites in 1976 and in 1981; and 3) the characteristics of nonworking adults in 1981.

Employment to Population Ratios

The percentage of the adult population (16 years of age and older) that was employed at some point during the year, is known as the employment to population ratio (E/P ratio). This ratio is often used to examine patterns of employment among population groups (*12*). It combines the population's inclination to seek work and the probability of obtaining a job. Changes in this ratio over time indicate changes in both the desire of the population to work and the availability of jobs.

Employment to Population Ratios in 1976. The difference between the measured E/P ratios for all blacks and whites in 1976 was not statistically significant (table 3). There were also no significant differences in the 1976 E/P ratios between whites and blacks by gender or education level. The only significant difference in 1976 E/P ratios was for persons aged 16 to 24 years. A significantly larger percentage of whites than blacks in this age group were employed. This result is consistent with national data which show that young black adults have historically had lower E/P ratios and higher unemployment rates than young whites (*10, 12, 14*). Reasons cited for the racial disparity in young adult E/P ratios include educational differences, discrimination in hiring, a limited knowledge of the labor market among low socioeconomic groups, and the discouraging effect of persistently high unemployment rates for black youths (*10, 14*).

Employment to Population Ratios in 1981. With the exception of the young adults, blacks and whites appeared to have had similar overall employment opportunities in the study area in 1976. However, between 1976 and 1981, when the study area's job market grew rapidly, significant differences had appeared in the overall E/P ratio as well as in several subcategories of black and white employment to population ratios. Unlike 1976, in 1981 black men were significantly less likely to have worked during the year than white men. In addition, blacks in their prime working years (35 to

54 years of age) were also employed at significantly lower levels than their white counterparts in 1981.

This latter result was almost entirely attributed to differences between the E/P ratios of white and black women. While the observed difference in E/P ratios between all black and white women was not statistically significant, black women in the 35 to 54 years age group were employed at significantly lower levels than were white women. Sixty percent of all white women in this age group worked in 1981 compared with only 35 percent of the black women. One explanation for this result may be that black women age 35 to 54 tended to live in larger households and households with more small children present than white women of the same age. For example, 29 percent of all black women in this age category lived in a household with a child under 6 years old, compared with less than 10 percent of similar-aged white women. The increased household responsibilities associated with small children make it more difficult for women to work outside the home.

Table 3—Employment to population ratios for continuous residents, by race, 1976 and 1981

Characteristic	1976		1981	
	White	Black	White	Black
	Percent			
Adult population	60.1	56.0	63.6**	51.5
Men	78.0	71.5	77.9**	61.8[1]
Women	45.3	45.4	51.5[2]	44.3
Age:				
16 to 24 years	63.9**	42.4	66.4**	38.9
25 to 34 years	74.9	77.7	82.5[2]	76.2
35 to 54 years	70.6	71.2	81.6**[2]	70.6
55 to 64 years	50.3	50.9	53.1	54.2
65 years and older	15.1	13.0	17.4	9.4
Education:				
Less than high school	51.3	52.1	47.3	42.6[1]
High school	66.9	61.7	75.0[2]	68.9
Beyond high school	65.8	71.9	76.7[2]	69.4

**Significantly different from the corresponding black value at the 99-percent confidence level.

[1]Significantly different from 1976 black value at the 95-percent confidence level.

[2]Significantly different from 1976 white value at the 95-percent confidence level.

As in 1976, there was no significant difference in the E/P ratios of blacks and whites by education level in 1981. That is, adult blacks with less than a high school education were as likely to be employed as whites with less than a high school education. Similarly, blacks and whites who had completed high school and those who had attended college were equally likely to be employed (table 3). These results strongly suggest that educational attainment was a major determinant of employment in the study area, and they also help explain why significantly larger proportions of adult whites, as a group, were employed than blacks in 1981. On average, adult whites had completed 11.4 years of schooling compared with 9.3 years for blacks. Since higher educational attainment is generally associated with greater labor market success, these findings suggest that much of the overall difference in black and white E/P ratios is due to whites' higher level of schooling.[6]

Changes in Employment to Population Ratios between 1976 and 1981. The change in the overall white E/P ratio in 1981 was not statistically different from the white 1976 E/P ratio (table 3). The overall E/P ratios for blacks also did not change significantly between 1976 and 1981. However, these ratios mask some significant racial changes by gender, age, and education groups. For example, between 1976 and 1981, the E/P ratios for white women increased significantly, while the E/P ratio for black men decreased significantly. During this same 5-year period, the E/P ratios for white men and black women did not change significantly.

These changes indicate that white women benefited relatively more than did black men in the area's employment growth. However, the white women who started work after 1976 and the black men who quit working between 1976 and 1981 probably were not competitors for the same jobs. The group of white women who began working between 1976 and 1981 had completed an average of 12 years of school and worked mostly in professional or technical occupations. Black men who left the work force after 1976, on the other hand, were generally older than these white women, had completed an average of only 7

[6]While blacks were as likely to be employed as whites with the same education level, this result cannot be used to draw conclusions about racial discrimination. The Georgia study was not designed to measure the effects of discrimination in the labor market. Other research has shown that employed blacks in the rural South may be victims of substantial wage discrimination and occupational segregation (*16*).

years of school, and had mostly worked in production-related jobs. The decrease in the percentage of black men who were employed from 1976 to 1981 has negative implications for black households because some researchers have argued that income earned by male members of a household may be the most important variable affecting the longrun movement of black families out of poverty (*30*).[7] The E/P ratios for whites in the age groups of 25 to 34 years and 35 to 54 years also increased significantly between 1976 and 1981. These are usually the years when average earnings peak for most workers (*11*). None of the 1981 E/P ratios for blacks by age changed significantly from 1976.

The E/P ratios for whites who completed high school and for those with some college education increased substantially between 1976 and 1981, while the E/P ratio for blacks who did not complete high school decreased significantly. These changes suggest that job growth in the area benefited the more educated persons (especially whites) more than those less educated. Persons with more education were apparently better able to take advantage of the new job opportunities than were less educated persons. Education increases peoples' ability to adapt to shifts in the demand for labor and qualifies them for more types of jobs. Many employers, when hiring, use educational attainment of applicants as the main indicator of future work proficiency (*8*). Because whites had more years of formal education than blacks had, whites tended to benefit more from job growth requiring higher levels of schooling.

In summary, whites were significantly more likely than blacks to be employed in 1981, a result not found in 1976. This finding would be unexpected if whites and blacks shared equally in the area's job growth. White women were the biggest gainers during the 5-year period, while the percentage of black men who were employed actually decreased during a time of overall employment growth in the area.

Employed Persons

Were white workers more skilled than black workers? In what other ways did employed whites and blacks differ? Did major changes occur in their characteristics between 1976 and 1981? These are important economic development questions because the skills and experience workers bring to the labor market in large part determine their wages. The demographic and economic characteristics of the employed continuous residents by race are presented in table 4.

Characteristics in 1976. While some characteristics of the 1976 workers, such as average age, were similar by race, significant differences existed in other characteristics between white and black workers. Some of these characteristics help to explain the racial differences in employment rates and suggest how the benefits of economic development varied by race. For example, men made up a larger proportion of white workers than of black workers in the study area. White households will benefit from the fact that the earnings of employed men are generally greater than the earnings of employed women. For that same reason, black households, where women are frequently the principal wage earner, will probably be relatively worse off than white households.

Educational attainment was one of the most striking differences between white and black workers in 1976 that probably affected their employment and earnings levels. Sixty-four percent of all employed whites had completed high school, compared with only 38 percent of the blacks. Similarly, a much greater proportion of whites had some college education. On average, white workers completed 2 more years of schooling than blacks did.

Black wage workers were as likely to work full-time as white wage workers in 1976, but white workers were more likely to be self-employed. The higher level of self-employment of whites in the study area mirrors similar national figures.[8] Whites in general appear to be more likely to have the managerial experience and capital necessary to start a business. Historically, there have been relatively few black-owned businesses, so blacks have had less opportunity than whites to inherit a relative's business or learn first hand how to run a self-owned business.

The distribution of occupations by race in 1976 shows that blacks, in contrast to whites, were disproportionately concentrated in production positions. Whites, on the other hand, were significantly more likely to be employed in the higher paying professional occupa-

[7]Nationally, black men contributed only 56 percent of black total family money income in 1981, compared with 71 percent for all men (*26*).

[8]Nationally, 9.2 percent of employed whites were self-employed in 1981 compared with 4.5 percent of employed blacks (*27*).

tions.[9] Although the percentage of whites and blacks employed in technical positions was not significantly different, within this group whites held more of the marketing, sales, and clerical jobs while blacks predominated in the lower wage service jobs. On average, the weekly wage for black full-time workers was only 73 percent that of whites (table 4).

By industry, whites in 1976 were more likely than blacks to be working in wholesale or retail trade. Blacks, however, were overrepresented compared with whites in the manufacturing industry where most of the production occupations were found.

[9]The average 1976 weekly wage for area residents employed in professional occupations was $248 compared with $146 for technical workers and $158 for production workers.

Characteristics in 1981. The data for 1981 indicate that in some respects relative differences in black and white employment profiles were unchanged from 1976, but in some important measures the employment situation of blacks actually worsened over the 5-year period. For example, in 1981 whites worked a significantly greater number of weeks than blacks, a result not found in 1976. On average whites worked about the same number of weeks in 1981 as in 1976, while blacks worked almost 3 weeks less in 1981 than in

Table 4—Characteristics of employed continuous residents, 1976 and 1981

Characteristic	1976		1981	
	White	Black	White	Black
	Number			
Employed persons	47,730	18,520	56,970	20,960
	Percent			
Men	58.8*	51.8	56.1**	49.7
Women	41.2*	48.2	43.9**	50.3
	Years			
Average age	38.3	38.4	38.9	37.4
	Percent			
Education:				
Less than high school	35.5**	61.9	31.6**	54.7
High school	38.4**	29.9	41.5	36.0
Beyond high school	26.1**	8.2	26.9**	9.3
	Years			
Average years of schooling completed	11.6**	9.5	11.9**	10.1
	Percent			
Full-time wage worker[1]	81.9	86.8	78.2	83.0
Part-time wage worker	5.3	9.5	9.6	14.5
Self-employed worker	12.8**	3.7	12.2**	2.5
	Weeks			
Average weeks worked	46.7	47.3	46.9**	44.4[2]
	Percent			
Major occupation:				
Professional[3]	14.3**	7.9	15.4**	7.0
Technical[4]	51.4	46.6	50.9**	42.9
Production and related occupations	34.3**	45.5	33.7**	50.1
Industry:				
Manufacturing	20.7**	35.2	22.5**	37.1
Mining and construction	14.2	14.9	12.8	16.0
Wholesale and retail trade	22.3**	12.6	23.7**	12.3
TCPU and FIRE[5]	9.6	2.6[6]	7.9	2.3[6]
Other services[7]	13.9	11.9	12.1	11.3
Government	19.3	22.8	21.0	21.0
1981 workers who were employed in 1976	na	na	75.1	74.7
Participated in a job training program	NA	NA	10.3	11.7
	Dollars			
Average weekly earnings[8]	172**	125	239**	178

na = Not applicable. NA = Not available. *Significantly different from the corresponding black value at the 95-percent confidence level. **Significantly different from the corresponding black value at the 99-percent confidence level. [1]Represents workers working 30 or more hours per week. [2]Significantly different from the 1976 black value at the 99-percent confidence level. [3]Includes executives, administrators, and managers. [4]Includes marketing, sales, clerical, and service workers. [5]TCPU is transportation, communications, and public utilities; FIRE is finance, insurance, and real estate. [6]Estimate based on fewer than 10 unweighted observations. [7]Includes hotels, personal, business, amusement, health, legal, education, and social services. [8]Based on earnings of full-time wage and salary workers.

1976. This result can have an important effect on black households because less work means lower annual incomes. This finding is probably related to the national economic downturn in 1981. Unemployment is more likely during a recession in blue collar occupations, where blacks predominate in the study area, than in other occupations (7).

In both 1976 and 1981, blacks were significantly less likely than whites to be working in wholesale and retail trade and more likely to be employed in manufacturing. This pattern of employment adversely affected blacks' employment in the study area in 1981. National data indicate that the manufacturing sector, with its high concentration of production workers, was most affected by the 1981-82 recession (29). Employment levels in services and wholesale and retail trade are generally less sensitive to recessions.

An individual's job skills in large part determine success in the labor market. These job skills can be attained through schooling, work experience, and participation in formal job training programs. Of the three indicators of job skills reported here, whites achieved significantly greater levels than blacks in 1981 only in formal educational attainment. The proportions of employed whites and blacks with formal job training in 1981 were not significantly different. About 10 percent of both races had participated in some job training program.[10] In terms of work experience, about three-quarters of both whites and blacks employed in 1981 had worked in 1976. However, work experience in 1976 as a machine operator may not be as valuable in leading to increases in earnings as work experience as a manager or engineer. Machine operators may have less opportunity for promotion and wage advancement than managers or engineers. Because blacks are underrepresented in the higher wage professional occupations, they may have benefited less from work experience than whites did. Other studies have shown that years of work experience may also be less valuable for blacks because some firms may not invest in as much on-the-job training for blacks as for whites, and may show a preference for promoting whites over blacks of similar qualifications (6). Our data do not permit us to determine if this conclusion is an appropriate one for the study area.

[10]Among all adults, whites, on average, received over 2 more months of job training than did blacks. However, among employed adults, blacks and whites did not differ significantly in terms of the number of months spent in job training programs. The quality of job training programs for whites and blacks could not be ascertained from the data.

Employment growth also provided jobs for persons with limited work experience. Twenty-five percent of the continuous residents employed in 1981 did not work in 1976. Many of these recent entrants to the labor force were youths making the transition from student to worker. Among persons with limited work experience, white women benefited the most from the area's job growth. White women, who made up 37 percent of the area's adult continuous residents, accounted for 45 percent of the recent entrants. Blacks, on the other hand, made up 31 percent of the adults, but only 27 percent of the recent entrants.

In both 1976 and 1981, whites were more likely than blacks to be working in professional occupations, while blacks were overrepresented relative to whites in production occupations. The distribution of professional occupations by gender also differed for whites and blacks. White men in the study area made up 65 percent of the white professionals in 1976 and 57 percent in 1981. However, black men held only one-third of the professional jobs held by blacks in both years. Once again this result has negative implications for black families relying on a man's income for their economic well-being. Black households headed by women also did not benefit from having the head of the household working in a high-paying professional job. Only 3 percent of the black women who headed households worked in professional occupations in 1981. In fact, 58 percent of all black women who headed households did not work during 1981.

The higher levels of education achieved by whites helps explain the greater proportion of whites in professional occupations in 1976 and 1981. Occupational mix in turn appears to account for the significantly higher average weekly earnings of whites. In 1981, as in 1976, the average weekly wage for black workers was only three-quarters that of whites.

Weekly wages of continuous residents not only differed by race but also by gender and by age (table 5). Adult black males both under and over 35 years of age had significantly lower average weekly incomes than did their white counterparts in 1976 and 1981. In both years young black men 16 to 35 years of age earned about 74 percent of the earnings of young white men, and black men age 35 years and older averaged only about 60 percent of the weekly wage of comparably aged whites. These results support the findings of other

research in which the greatest racial differences in average earnings, in both absolute and relative terms, were among older men (*6, 9, 11*). The smaller earnings gap between young black and white workers is probably because of the relatively smaller differences in educational attainment, skills, and work experience at the younger age levels (*11*).

Since the sixties, the black-to-white earnings difference for women at the national level has been narrower than that observed for men (*9*). Although black women in the study area earned significantly less than white women in 1976, the earnings gap was less than that observed for men. This finding may be because women, both white and black, are more concentrated in lesser skilled, lower paying jobs which have traditionally been easier for blacks to enter (*32*). The earnings gap between the study area's white and black women narrowed in 1981. In fact, the average weekly earnings in 1981 of black women over 35 years of age did not differ significantly from those of similarly aged white women. This was the only group based on age and gender for which this was true.

In summary, employed blacks did not improve their position in the labor market between 1976 and 1981 in relation to whites. Black workers in 1981, as in 1976, were less educated, earned lower wages, and were less likely to be working in professional occupations than white workers. Unlike whites, blacks worked fewer weeks in 1981 than in 1976, a result that has negative implications for the annual earnings of blacks. Among persons with limited work experience, white women benefited most from the area's employment growth.

Nonworking Adults

Availability of workers is an important factor in future economic growth. Adults who are not working represent part of the area's pool of potential employees. The reasons that those adults were not employed will indicate if they would be available for employment if jobs were available for them. In 1981, almost half (48 percent) of the adult black continuous residents in the study area were not working, but only 36 percent of the adult white continuous residents were not employed. Furthermore, between 1976 and 1981, the number of nonworking adults increased by 36 percent for blacks compared with only 3 percent for whites.[11] Clearly blacks did not benefit from the area's increased employment opportunities to the same degree as whites.

[11]The number of adult continuous residents increased by 13 percent for whites and 23 percent for blacks over the same period of time.

Table 5—Average weekly wages of employed continuous residents, by race, gender, and age, 1976 and 1981[1]

Characteristic	1976			1981		
	White	Black	Black/white ratio	White	Black	Black/white ratio
	Dollars		*Percent*	*Dollars*		*Percent*
Men	204**	135	66	284**	187	66
Age:						
16 to 35 years	179**	133	74	240**	176	73
35 years and older	230**	136	59	323**	197	61
Women	130**	113	87	184**	168	91
Age:						
16 to 35 years	129**	112	87	178**	156	88
35 years and older	131**	115	88	191	182	95

**Significantly different from the corresponding black value at the 99-percent confidence level.
[1]Based on earnings of full-time wage and salary workers.

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Data from the 10 counties indicate that the reasons for not working differed significantly by race (table 6). Nonworking whites were more likely than nonworking blacks to report that they were not interested in paid employment, while blacks were more likely than whites to be nonworkers because they could not find jobs or could not meet employers' hiring requirements.

The factors involved in explaining these differences by race are presented in table 7. Two factors, age and education, appear to be the major reasons that blacks were more likely than whites to not work in 1981.

About one-third of the nonworking adult blacks were 16 to 24 years old, compared with only 16 percent of the nonworking white adults. This result is due in part to the younger age structure of the black population. A larger percentage of the adult black nonworkers (25 percent) than adult white nonworkers (13 percent) were still in school, and therefore less likely to be employed.[12] Historically, young blacks have been employed at significantly lower rates than young whites (*10, 12, 14*).

[12]Most (85 percent) of the white and black nonworkers still in school in 1981 gave "not interested in paid employment" as the main reason for not working in 1981.

Table 6—Reasons for not working by race, adult continuous residents, 1981

Nonworking adults/reason	White	Black
	Number	
Adults not working	32,560	19,730
	Percent	
Could not find work or could not meet hiring requirement[1]	7.0**	15.6
Ill health, disability	28.0	31.0
Not interested in paid employment	64.2**	51.3
Other[2]	.8	2.1

**Significantly different from the corresponding black value at the 99-percent confidence level.
[1]Includes unemployed persons.
[2]Includes persons on strike or persons expected to be recalled to old job, and persons for whom transportation to work was not available. Estimate based on fewer than 10 unweighted observations.

While factors not considered in this study, such as racial discrimination, may be important in explaining the significantly greater percentage of blacks among the area's nonworking adults, education also plays an important role. Nonworking blacks had significantly less schooling than nonworking whites. Seventy-eight percent of the black nonworkers and 61 percent of the

Table 7—Characteristics of adult continuous resident nonworkers, 1981

Characteristic	White	Black
	Number	
Adults not working	32,560	19,730
	Percent	
Men	27.8	32.7
Women	72.2	67.3
Age:		
16 to 24 years	16.4**	35.3
25 to 34 years	9.5	8.5
35 to 54 years	15.2	16.9
55 to 64 years	19.1**	10.9
65 years and older	39.8*	28.4
	Years	
Average age	53.3**	44.3
	Percent	
Education:		
Less than high school	61.5**	78.4
High school	24.2*	17.2
Beyond high school	14.3**	4.4
	Years	
Average years of schooling completed	9.8**	8.3
	Percent	
Attended school in 1981	12.7*	24.5
Participated in a job training program	1.1[1]	3.7[1]
Worked in 1976, but did not work in 1981	15.1	14.4

*Significantly different from the corresponding black value at the 95-percent confidence level.
**Significantly different from the corresponding black value at the 99-percent confidence level.
[1]Estimate based on fewer than 10 unweighted observations.

nonworking whites did not complete high school. After accounting for persons still in school in 1981, black nonworkers averaged only 7.5 years of schooling compared with 9.6 years for whites. The educational levels of both groups of nonworkers, however, were below the levels of employed whites and blacks. Compared with workers, nonworking adults also had lower levels of job training and previous work experience. Only 15 percent of both the white and black nonworkers in 1981 worked in 1976.

The low levels of education, job training, and work experience suggest that many of these people are the "hard-core" unemployed and those out of the labor force. In fact, only 14 percent of the nonworking whites and 37 percent of the nonworking blacks stated that they intended to look for work in the next 12 months. Even for nonworking adults who wanted to work, the outlook for employment for this group may not be very good. Due to their lack of job skills and low education levels, many nonworkers may not be able to take advantage of job growth in occupations that require even moderate levels of education or job skills.

Inmigrants

Continuous residents are not the only ones affected by an area's growth. Inmigrants from outside the area compete with continuous residents for new jobs. If the local unemployed have less education and work skills than inmigrants, the inmigrants may take many of the jobs associated with economic growth. As more highly skilled inmigrants enter the area, the quality of the labor supply improves, hiring requirements become stricter, and those persons with low job skills and education levels find themselves at an even greater disadvantage in the labor market (*8*). This situation may in turn limit their entrance into high-wage jobs and may actually crowd some groups out of the job market.

In this study, inmigrants are defined as persons who moved into the 10-county area between January 1, 1976, and January 1982. Ninety percent of all inmigrants were white. Because of the small number of black inmigrant observations, we did not attempt statistical tests of differences between black and white inmigrants (table 8).

Inmigrants were much more successful in the labor market during 1981 than continuous residents were. About 73 percent of the adult white inmigrants and 79 percent of the adult black inmigrants worked in 1981 compared with only 64 percent of the continuous white residents and 51 percent of the continuous black residents. While the sex composition of the area's em-

Table 8—Characteristics of employed inmigrants, 1981

Characteristic	White	Black
	Number	
Employed inmigrants	13,840	1,630
	Percent	
Men	58.6	47.5[1]
Women	41.4	52.5[1]
	Years	
Average age	33.2	29.3
	Percent	
Education:		
Less than high school	20.3	14.5[1]
High school	30.1	55.2[1]
Beyond high school	49.6	30.3[1]
	Number	
Average years of schooling completed	13.2	12.5
	Percent	
Full-time wage worker[2]	82.5	77.6
Part-time wage worker	9.4	16.8[1]
Self-employed worker	8.1	5.6[1]
	Number	
Average weeks worked	44.2	42.2
	Percent	
1981 workers who were employed in 1976	78.7	80.2
Participated in a job training program	25.4	14.8[1]
	Dollars	
Average weekly earnings[3]	280	235

[1]Estimate based on fewer than 10 unweighted observations.
[2]Represents workers working 30 or more hours per week.
[3]Based on earnings of full-time wage and salary workers.

ployed inmigrants closely resembled that of employed continuous residents by race, the average age of employed inmigrants was younger than that of continuous resident workers.[13] In terms of education, employed inmigrants attained greater levels of schooling than employed continuous residents. Inmigrants of both races averaged more than 12 years of schooling. Employed inmigrants also had participated in job training programs more often than employed continuous residents. These higher levels of education and training of inmigrants were reflected in their average weekly wages. White inmigrants earned $41 per week more than employed white continuous residents, and black inmigrants earned an average of $57 more than employed black continuous residents.

Results from the 10-county area parallel previous research which found inmigrants to be better educated, have more training, and command higher salaries than continuous residents (*4, 8*). These results have some negative implications for blacks in the study area. First, because inmigrants, both black and white, were able to compete successfully with continuous residents for jobs, employment benefits resulting from economic growth are limited for continuous black residents in the area; and some, who have few job skills, may actually be displaced from employment. Second, because 90 percent of all inmigrants into the area were white, nonresident whites apparently took advantage of the area's new job opportunities by migrating into the area to a greater degree than nonresident blacks.

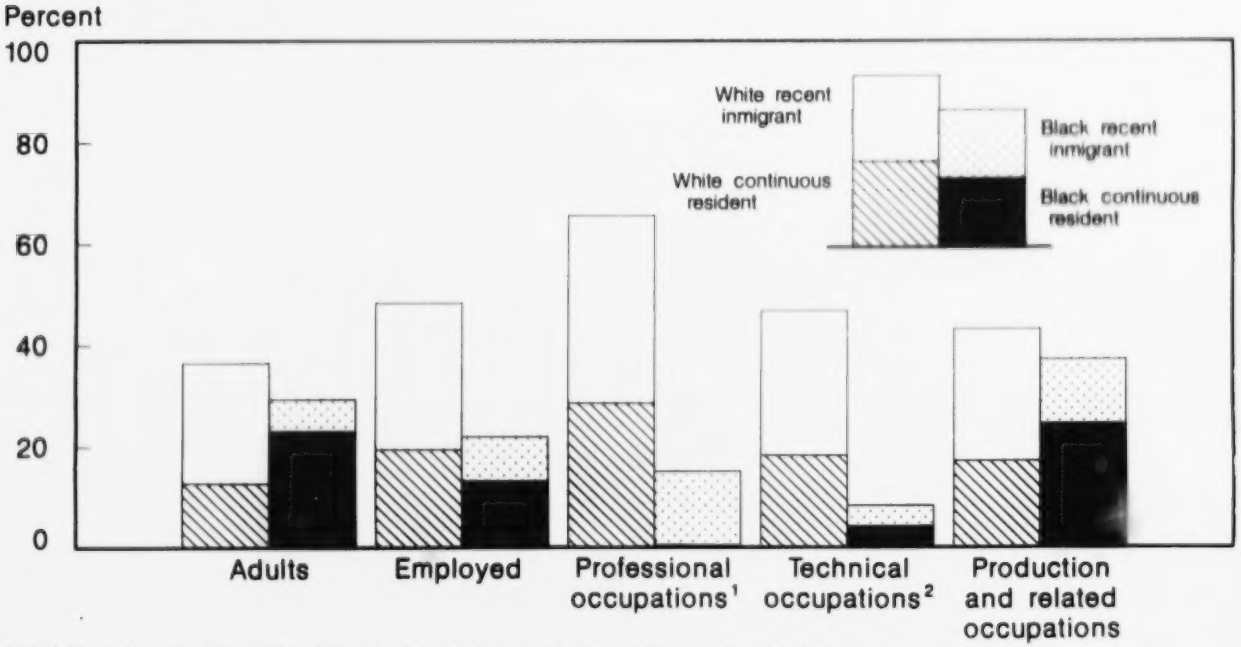
[13]See table 4 for characteristics of employed continuous residents.

Summary of Labor Force Changes, 1976-81

The study area's adult population increased by 36 percent for whites and 29 percent for blacks between 1976 and 1981. Almost two-thirds of the increase in white adults were recent inmigrants while recent inmigrants contributed only 21 percent of the increase in black adults. The balance of the increase in adults consisted of continuous residents reaching labor force age sometime after 1976 (fig. 2).

Figure 2

Percent Change in Employment and Occupations, by Race, 1976-81



1/ Includes executives,administrators, and managers. 2/ Includes marketing, sales, clerical, and service workers.

The number of employed persons increased by 48 percent for whites but only 22 percent for blacks. Blacks actually lost jobs in relation to their increase in the number of adults; that is, blacks' employment to population (E/P) ratio decreased. Black continuous residents were responsible for most of this decline. Conversely, the E/P ratio for white adults increased between 1976 and 1981; the percentage increase in the number of employed whites was greater than the percentage increase in the number of white adults.

Not only did whites outgain blacks in the number of jobs, they also got more of the professional and technical jobs. The percent increase in the number of white professionals was over four times greater than that of blacks. Among blacks, most newly employed professionals between 1976 and 1981 were inmigrants; the number of black continuous residents who were professionals increased by less than 1 percent. In contrast, the number of employed white continuous residents in professional jobs increased 28 percent. Whites also outgained blacks with respect to technical occupations. The percent increase in white technical workers was over five times that of blacks.

Between 1976 and 1981, whites gained in the number of jobs they held and in their domination of professional and technical occupations. Sixty-nine percent of the increase in white employment was in the professional or technical fields compared with only 23 percent for blacks. Only in the relatively low-skill production occupations did employment increase at comparable rates for whites and blacks.

Conclusions

Whites in the 10-county study area benefited from economic growth more than blacks did. A significantly greater percentage of adult whites were employed in 1981 than were adult blacks, a result not found in 1976. Employment of white women increased the most between 1976 and 1981, while the percentage of black males who were employed actually decreased over the period.

Within the group of residents living continuously in the area in both 1976 and 1981, whites increased their share of employment in the professional and technical occupations in relation to blacks. The number of white professionals increased by 28 percent compared with less than 1 percent for blacks. Although the relative weekly wage for employed whites and blacks stayed about the same (black workers earned only about 75 percent of the earnings of white workers), annual income of blacks was adversely affected in relation to annual income of whites because blacks worked significantly fewer weeks than whites in 1981, a result not found in 1976.

Inmigrants of both races were better able to compete for new jobs than continuous residents were. However, most inmigrants were white. As these more educated, more highly skilled inmigrants moved into the area, the average education and skill levels of the labor force increased. Less skilled continuous residents, especially blacks, became relatively worse off than before.

While the study did not measure the effect of racial discrimination in the area, the low education levels of many blacks is one factor in explaining their low labor market position. Frequently, less educated persons are not able to adapt to jobs requiring new and different job skills to the same degree as better educated persons and they are not well suited to compete with better educated inmigrants for new jobs. Nonworking blacks were more likely than nonworking whites to want to work but could not find jobs or meet hiring requirements. White nonworkers were more likely to choose not to work.

Blacks need to increase their formal education in order to better compete with whites for jobs in the study area. Public investment in formal job training programs may also help blacks move to higher wage jobs.

Employment opportunities resulting from economic growth are not distributed equally among rural residents. If the purpose of rural development is to increase employment levels and incomes of the disadvantaged, then general economic development alone may not achieve the goal. Many persons are unable to take advantage of increases in an area's job opportunities because of lower levels of schooling and job skills. Therefore, better education and increased job training may be necessary to distribute economic benefits more equally.

References

1. Bieker, R. F. "Can Private Sector Jobs Reduce Welfare Dependency?," *Growth and Change*, Vol. 13, No. 2 (Apr. 1982), pp. 2-9.

2. Brown, D. L. "Racial Disparity and Urbanization, 1960 and 1970," *Rural Sociology*, Vol. 43, No. 3 (Fall 1978), pp. 403-25.

3. Button, J. "The Quest for Economic Equality: Factors Related to Black Employment in the South," *Social Science Quarterly*, Vol. 62, No. 3 (Sept. 1981), pp. 461-74.

4. Daberkow, S. G., D. K. Larson, R. Coltrane, and T. A. Carlin. *Distribution of Employment Growth in Nine Kentucky Counties: A Case Study*. RDRR-41. U.S. Dept. Agr., Econ. Res. Serv., Aug. 1984.

5. Davis, F. G. "What To Do About Urban Poverty: The Black Ghetto Case," *Journal of Economic Issues*, Vol. 16, No. 3 (Sept. 1982), pp. 877-87.

6. Flanagan, R. J. "Labor Force Experience, Job Turnover, and Racial Wage Differentials," *The Review of Economics and Statistics*, Vol. 56, No. 4 (Nov. 1974), pp. 521-29.

7. Gilroy, C. L. "Black and White Unemployment: The Dynamics of the Differential," *Monthly Labor Review*, Vol. 97, No. 2 (Feb. 1974), pp. 38-47.

8. Gray, I. "Employment Effect of a New Industry in a Rural Area," *Monthly Labor Review*, Vol. 92, No. 6 (June 1969), pp. 26-30.

9. Hedges, J. N., and E. F. Mellor. "Weekly and Hourly Earnings of U.S. Workers, 1967-78," *Monthly Labor Review*, Vol. 102, No. 8 (Aug. 1979), pp. 31-41.

10. Iden, G. "The Labor Force Experience of Black Youth: A Review," *Monthly Labor Review*, Vol. 103, No. 8 (Aug. 1980), pp. 10-16.

11. Mellor, E. L., and G. D. Stamas. "Usual Weekly Earnings: Another Look at Intergroup Differences and Basic Trends," *Monthly Labor Review*, Vol. 105, No. 4 (Apr. 1982), pp. 15-24.

12. Newman, M. J. "The Labor Market Experience of Black Youth, 1954-78," *Monthly Labor Review*, Vol. 102, No. 10 (Oct. 1979), pp. 19-27.

13. Ryscavage, P. M. "Impact of Higher Unemployment on Major Labor Force Groups," *Monthly Labor Review*, Vol. 93, No. 3 (Mar. 1970), pp. 21-25.

14. Schaub, J. D. *The Nonmetro Labor Force in the Seventies*. RDRR-33. U.S. Dept. Agr., Econ. Res. Serv., Nov. 1981.

15. _____, and V. J. Oliveira. *Distribution of Employment Growth in 10 Georgia Counties: A Case Study*. RDRR-53. U.S. Dept. Agr., Econ. Res. Serv., Nov. 1985.

16. Smith, L. H., V. M. Briggs, Jr., B. Rungeling, and J. O. Smith, Jr. "Wage and Occupational Differences Between Black and White Men: Labor Market Discrimination in the Rural South," *Southern Economic Journal*, Vol. 45, No. 1 (July 1978), pp. 250-57.

17. Tobin, J. "On Improving the Economic Status of the Negro," *Daedalus*, Vol. 95, No. 4 (Fall 1965), pp. 878-98.

18. U.S. Department of Agriculture, Economic Research Service. Unpublished Hired Farm Working Force Survey data for 1960.

19. _____, Economic Research Service. Unpublished Hired Farm Working Force Survey data for 1981.

20. _____, Office of the Secretary. *Rural Development Goals: Second Annual Report of the Secretary of Agriculture to the Congress*. June 1975.

21. U.S. Department of Commerce, Bureau of the Census. *Census of Population and Housing, 1980*. STF-3. 1982.

22. _____, Bureau of the Census. *1980 Census of Population: Detailed Population Characteristics*, Part 1: *United States Summary, Section A*. Mar. 1984.

24

23. _____, Bureau of the Census. *1980 Census of Population: General Social and Economic Characteristics, United States Summary.* Dec. 1983.

24. _____, Bureau of the Census. *1974 Census of Agriculture,* Vol. II: *Statistics by Subject,* Part 3: *Tenure, Type of Organization, Contracts, Operator Characteristics, Principal Occupation.* Sept. 1978.

25. _____, Bureau of the Census. *1978 Census of Agriculture,* Vol. 1: *Summary and State Data,* Part 51: *United States.* July 1981.

26. _____, Bureau of the Census. *Money Income of Households, Families, and Persons in the United States: 1981.* Current Population Report Series, P-60, No. 137. 1983.

27. _____, Bureau of the Census. "Current Population Surveys, 1981." Unpublished data.

28. _____, Bureau of Economic Analysis. Unpublished employment and population data for 1976 and 1981. Personal communication, Jan. 1984.

29. Urquhart, M. A., and M. A. Hewson. "Unemployment Continued To Rise in 1982 as Recession Deepened," *Monthly Labor Review,* Vol. 106, No. 2 (Feb. 1983), pp. 3-12.

30. Weiss, L., and J. G. Williamson. "Black Education, Earnings, and Interregional Migration: Some New Evidence," *American Economic Review,* Vol. 62, No. 3 (June 1972), pp. 372-83.

31. Welch, F. "Black-White Differences in Returns to Schooling," *American Economic Review,* Vol. 63, No. 5 (Dec. 1973), pp. 893-907.

32. Westcott, D. N. "Blacks in the 1970's: Did They Scale the Job Ladder?" *Monthly Labor Review,* Vol. 105, No. 6 (June 1982), pp. 29-38.

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